



Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6501 (1972): Forceps, Gouge, Orthopaedic, Stille Luer's Pattern [MHD 2: Orthopaedic Instruments, Implants and Accessories]

“ज्ञान से एक नये भारत का निर्माण”

Satyanareshwar Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśākām

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



PROTECTED BY COPYRIGHT



Indian Standard

**SPECIFICATION FOR
FORCEPS, GOUGE, ORTHOPAEDIC, STILLE
LUER'S PATTERN**

1. Scope — Dimensions and other requirements for gouge forceps of Stille Luer's pattern used in orthopaedic surgery.

2. Material

2.1 Arms — Stainless steel having the following composition:

	<i>Percent</i>
Carbon	0·35 to 0·45
Silicon	1·0 <i>Max</i>
Manganese	1·0 <i>Max</i>
Chromium	12·5 to 14·5
Nickel	1·0 <i>Max</i>
Sulphur	0·03 <i>Max</i>
Phosphorus	0·03 <i>Max</i>

2.2 Springs — Stainless steel conforming to Designation 30Cr13 of Schedule V of IS : 1570-1961 'Schedules for wrought steels for general engineering purposes'.

2.3 Screws — Stainless steel conforming to Designation 22 Cr13 of Schedule V of IS : 1570-1961.

3. Shape and Dimensions — As shown in Fig. 1.

4. Workmanship

4.1 The forceps shall be free from rough edges, pits, burrs, cracks and blemishes of any kind.

4.2 The cutting edges shall be sharp and uniform.

4.3 When the jaws are closed, the cutting edges shall meet evenly.

4.4 The joints shall have no undue play.

4.5 The spring action shall be smooth. It shall be neither too hard nor too slack.

4.6 The compound action shall be smooth and free from jerks.

5. Heat Treatment — The arms shall be hardened and tempered to 520 to 600 HV, the springs to 380 to 420 HV and the screws to 290 to 320 HV.

6. Finish — The forceps shall be finished smooth, passivated and polished bright.

7. Tests

7.1 Performance Test — Cut a piece of rib of a fully grown goat or sheep five times with the instrument. Each time the instrument shall cut the rib evenly in one bite without any undue resistance, and cutting edges shall not show any sign of damage.

7.2 Load Closure Test — Apply a compressive force of 15 ± 2 N ($1\cdot5 \pm 0\cdot2$ kgf approximately) at the ends of the handles. The cutting edges shall meet evenly after the test.

7.3 Corrosion Resistance Test — Scrub the instrument with soap and warm water, rinse in hot water and then dip in 95 percent ethyl alcohol. Dry the instrument, immerse in copper sulphate solution at room temperature for 6 minutes and wash with fresh water or wet cotton wool.

The copper sulphate solution shall be made up as follows:

Copper sulphate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$)	4.0 g
Sulphuric acid (H_2SO_4) (sp gr 1.84)	10.0 g
Distilled water [see IS : 1070-1960 Specification for water, distilled quality (revised)]	90.0 ml

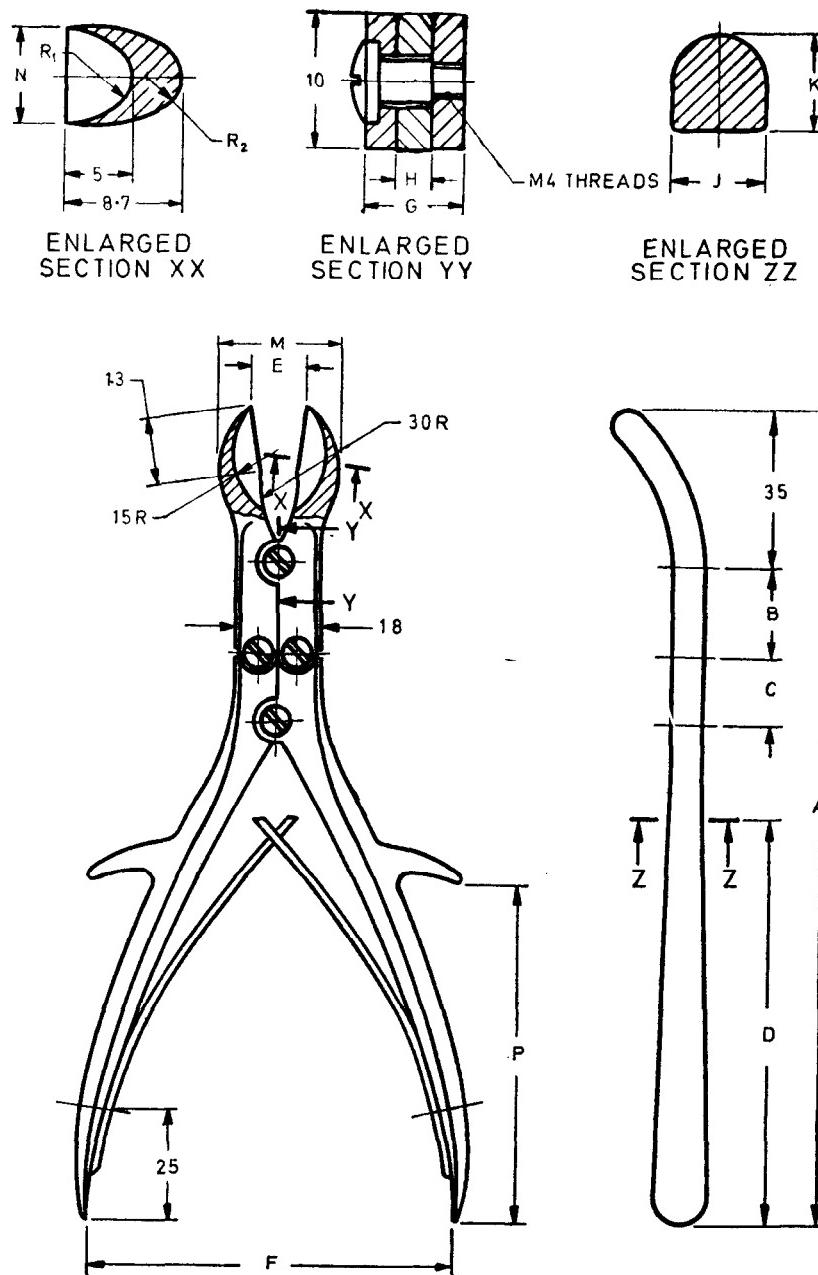
There shall be no red stains or spots on the instrument, but dulling of the polished surface may be permitted.

8. Marking — The forceps shall be marked with the following:

- a) Manufacturer's name, initials or recognized trade-mark;
- b) Size of the forceps; and
- c) Country of origin.

8.1 ISI Certification Marking — Details available from the Indian Standards Institution, New Delhi 1.

9. Packing — As agreed to between the purchaser and the supplier.



Size	A	B	C	D	E	F	G	H	J	K	M	N	P	R ₁	R ₂
Small	± 5			± 2	± 1	± 2	± 0.5	± 0.5	± 0.5	± 0.5	± 1	± 0.5	± 2	2.3	2.5
Medium	180	20	15	95	12	80	7.0	2.5	7.0	7.0	26.0	7.0	80	4.0	4.5
	225	.35	.20	105	14	100	12.0	4.5	12.0	10.0	28.0	12.0	90		

All dimensions in millimetres.

FIG. I FORCEPS, GOUGE, STILLE LUER'S PATTERN